

## CLAIMS

1. A method of facilitating regeneration, growth and/or development of a central nervous system in an animal or bird said method comprising increasing elevating or otherwise enhancing the levels of a Eph receptor or its functional equivalent or a ligand thereof.
2. A method of regulating axon guidance in an animal or bird said method comprising increasing, elevating or otherwise enhancing the levels of an Eph receptor or its functional equivalent or a ligand thereof.
3. A method for facilitating the repair or replacement of axons or otherwise facilitating repair of nervous tissue in animal or bird, said method comprising increasing, elevating or otherwise enhancing the levels of an Eph receptors or its functional equivalent in a region surrounding the cortex and/or inhibiting, reducing or otherwise down-regulating expression of the Eph receptor or its functional equivalent when expressed in tissues outside said region surrounding the cortex and which expression leads to blockage of axonal growth.
4. A method according to any one of claims 1 to 3 wherein the animal is a mammal.
5. A method according to claim 4 wherein the mammal is a human.
6. A method according to any one of claims 1 or 3 in response to disease or trauma.
7. A method according to claim 6 wherein the disease or trauma is brain or spinal cord injury or disease of the upper motor neuron.
8. A method according to claim 1 or 2 wherein the Eph ligand is an ephrin or a functional equivalent thereof.

9. A method according to any one of claims 1 to 3 comprising administering soluble or near soluble forms of Eph receptors or their ligands or their functional equivalents or multimeric forms thereof.
10. A method according to claim 9 wherein Eph receptor or ligand administration is *via* the spinal cord or brain.
11. A method according to claim 10 wherein Eph receptor or ligand administration is facilitated by co-administration with the TAT gene of HIV.
12. A method according to claim 11 wherein Eph receptor or ligand administration is *via* intraperitoneal, intravenous or subcutaneous administration.
13. A method according to any one of claims 1 to 3 wherein the Eph receptor is EphA4.
14. A genetically modified animal producing reduced levels of an Eph receptor or ligand thereof or their functional equivalents.
15. A genetically modified animal producing elevated levels of an Eph receptor or ligand thereof or their functional equivalents.
16. A genetically modified animal according to claim 14 or 15 wherein the Eph receptor is EphA4 or its functional equivalent.
17. A genetically modified animal according to claim 14 or 15 or 16 wherein the animal is a murine species.
18. A composition useful in facilitating regeneration, growth and/or development of a control nervous system or regulating axon guidance or facilitating repair or replacement of axons or repair of nervous tissue said composition comprising an Eph receptor or ligand or

a functional equivalent thereof and one or more pharmaceutically acceptable carriers and/or diluents.

19. A composition according to claim 18 wherein the Eph receptor is EphA4.
20. A composition according to claim 18 wherein the ligand is an ephrin.
21. Use of an Eph receptor or its ligand or their functional equivalently in the manufacture of a medicament for the regeneration, growth and/or development of a central nervous system or for regulating axon guidance or for facilitating repair or replacement of axons or for facilitating repair of nervous tissue.